

of the coal-growths, the existence of a *Devonian* flora, and the occurrence of fossils in the Lower Palæozoic rocks. His comparison of the old rocks of the Canadian regions with those of other parts of the world, in the Table at p. 92, is very interesting and suggestive. From the Ludlow beds downwards to the older gneisses of Scotland and Scandinavia, including the lately recognized Pebidian and Dimetian series, Dr. Dawson finds probable equivalents, of definite characters and position, in Canada and its vicinity.

The new edition of his work, with its well-considered additions, will prove to be valuable to the increasing population of British America, in the presence of the enlightenment of modern education, and the necessity of understanding the nature and whereabouts of the mineral productions of the rocks and the capabilities of the soil.

*The Gault, being the Substance of a Lecture delivered in the Woodwardian Museum, Cambridge, 1878, and before the Geologists' Association, 1879.* By F. G. HILTON PRICE, F.G.S. 8vo, 81 pp. Taylor and Francis, London, 1879.

IN this very useful history of the Cretaceous division of strata known as "the Gault," the author gives a special description of the Gault at Folkstone, bed by bed (pp. 10-23); a more general account of this formation as seen at the exposures along its outcrop in the various counties from Kent to Devonshire and Yorkshire (pp. 24-34); and a sketch of the Gault in France (pp. 34-42). The Greensand of Blackdown, the "Red Chalk" of Norfolk and Yorkshire, the various phosphatic and other nodular beds, and the results of the deep borings penetrating the Gault near London are specially noticed. An extensive and synoptical catalogue of the fossils (pp. 44-81) shows their occurrence at different localities and their range through the several zones of the Gault.

Besides thus indicating the geographical range of this important formation in England and France, and correlating the equivalents of the eleven zones which he recognizes in the Gault of Copt Point, Folkestone, the author has in view a hydrographical sketch of the area in which this important Cretaceous formation was deposited (pp. 8, 9). He notes that its composition varies much in different localities, according to the depth of water and the nature of the adjacent lands at the time of the deposition of its component parts; also that the fauna varied in the several regions according to the nature and conditions of change in the water and sea-bed. Further, he observes that the clays and sands of the Gault originated in the trituration of lands and cliffs composed, for the most part, of Jurassic and Neocomian rocks in what is now England, on the west side of the Anglo-Parisian Cretaceous basin, of Primary (Palæozoic) rocks in the north-east of the basin at the Ardennes, and of granites, porphyries, Jurassic, and Neocomian rocks on the east and south-west sides of the basin.

A careful list of books and memoirs treating of the Gault and its fossils is given at pp. 1-7.